TestBench Software

Problems with the labview code

It has a huge memory leak (can't take many events without killing Windows)
It is slow
Data anlysis is a separate step, taking time and risking error
Code maintenance is painful
It hangs sometimes
Can't safely abort a test!

New C++ Code

Analyze/plot data online while communication with FEM is taking place
1000 events is ~ 30 times faster than the labview code
No memory leaks
Easy maintenance (especially for me, the primary user)
Easy for others to use: data taking and database upload with one button push
Clean, responsive GUI
More intelligent handshaking with the FEM
I have detailed control of timing via multithreading

The code is still in development. Configuration is hard-coded, but will be put in a GUI. Pedestal test works fine.

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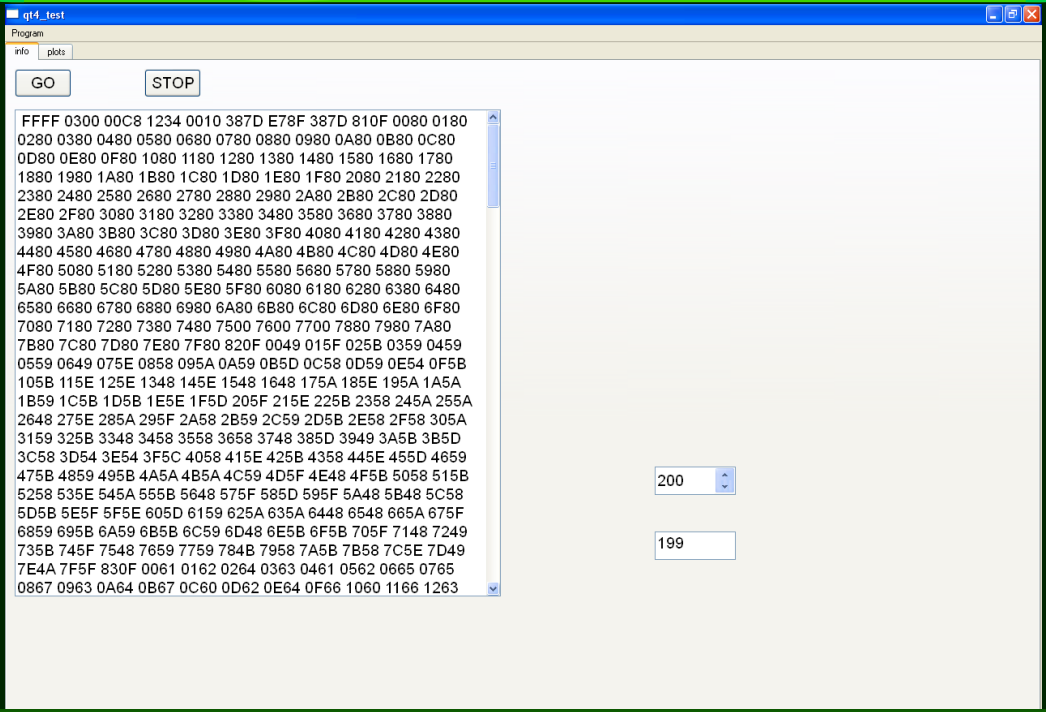

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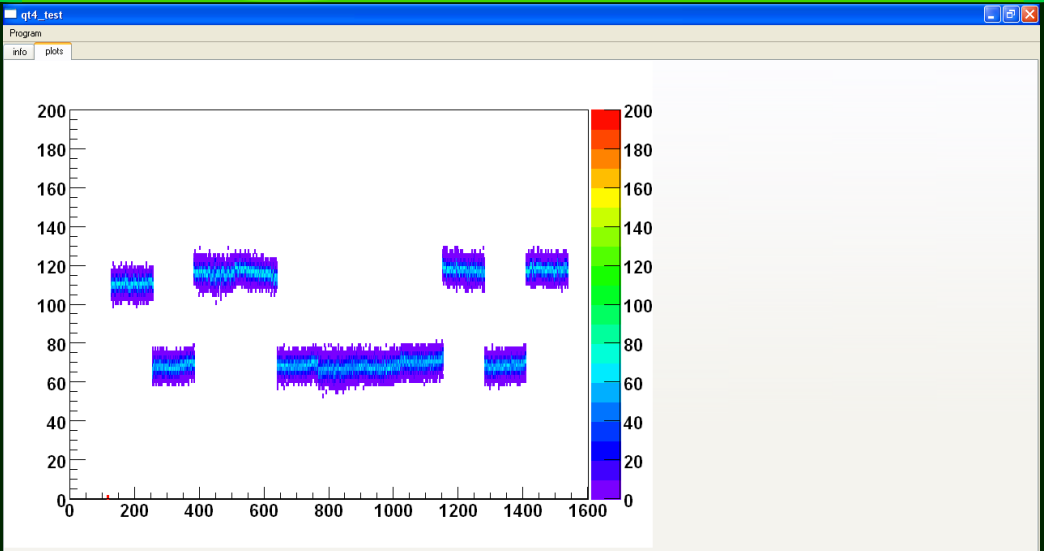

A Few Words about the Tracking Software

I have been working with Richard Petti (Axel's student), helping him to use (and extend) the tracking code to identify conversion electrons. So we have a bit more manpower.

I don't know how much time I'll have to work on the software. In principle putting the tracking algorithm into the PHENIX code shouldn't be difficult, though there are only a few parts of the code for which I would advocate copying and pasting. The algorithm is sound, but the code is written to be friendly for testing and experimenting, not for production.

I have some ideas on how to expedite the inclusion of the event display in online monitoring. I would like input on just what we would like to have in such a display. Maybe it will just be used for debugging of the tracking (as I have used it) and not for online monitoring.